PATENT ABSTRACTS OF JAPAN

(11)Publication number : **10-204059**
(43)Date of publication of application : **04.08.1998**

(51)Int.CI. C07D209/10
A61K 31/34
A61K 31/38
A61K 31/40
A61K 31/415
A61K 31/415
A61K 31/415
A61K 31/415
A61K 31/415
A61K 31/415
A61K 31/415
A61K 31/415
A61K 31/42
A61K 31/425
C07D235/18
C07D263/56
C07D277/66
C07D307/79
C07D333/54
C07D405/12
// C07M 7:00

(21)Application number : **09-023177**
(22)Date of filing : **22.01.1997**

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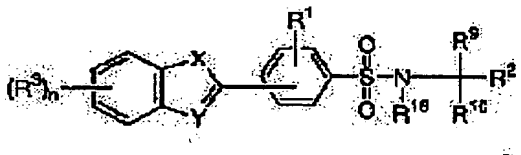
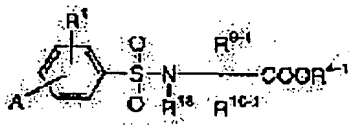
(54) PHENYLSULFONAMIDE DERIVATIVE

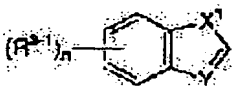
(57)Abstract:
PROBLEM TO BE SOLVED: To obtain the subject new compound having an inhibiting action to a matrix metalloproteinase, e.g. gelatinase, stromelysin or a collagenase, and useful for the prevention and treatment of rheumatoid arthritis, etc.
SOLUTION: This phenysulfonamide derivative is an objective compound expressed by formula I [R1 is H or a 1-4C alkyl; R2 is COOR4 (R4 is a 1-8C alkyl, phenyl, etc.), CONHOR5 (R5 is H, a substituted 1-4C alkyl, etc.); X is O, S, etc.; Y is CH or N; R3 is H, a 1-4C alkyl, etc., (n) is 1-4; R9, R10 are H, a 1-8C alkyl, etc.; R18 is H, a 1-4C alky or a 1-4C alkoxycarbonyl], e.g. N-[4-(2- indolyl) phenylsulfonyl-D-alanine. Further, to obtain the objective compound, e.g. it is preferable to react a compound expressed by formula II (A is a halogen or trifluoromethanesulfonyloxy) with a compound expressed by formula III in the presence of an organic solvent and a metal halide by using a catalyst at 0-100°C.



I



II



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LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

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[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]